

52. The exercise apparatus in accordance with claim 51, wherein the outer diameter drops abruptly at a first point on the perimeter the wider diameter to the narrower diameter and then gradually increases diameter until the wider diameter is reached about 160 degrees from area first point; and wherein at a second point perimeter drops abruptly to beyond the narrower diameter then curves outward to the narrower diameter, and then reaches the narrower diameter at which point the perimeter gradually increases in diameter until it reaches the wider diameter at the first point.

53. The exercise apparatus in accordance with claim 51, wherein the narrower diameter, the intermediate diameter and the wider diameter are approximately 5.15 inches, 5.62 inches and 6.10 inches respectively from a central point.

54. The exercise apparatus in accordance with claim 51, wherein the narrower diameter, the intermediate diameter and the wider diameter are approximately 4.43 inches, 4.85 inches and 5.25 inches respectively from a central point.

55. The exercise apparatus in accordance with claim 46, wherein the gripping plate comprises a variable diameter gripping plate and has first and second opposed offset spiral segments defining a portion of a periphery thereof.